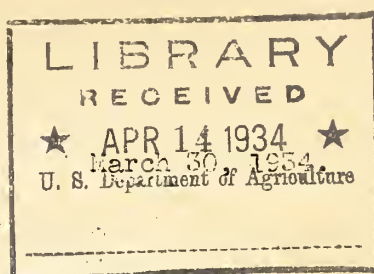


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United States Department of Agriculture
Bureau of Animal Industry
Animal Husbandry Division



Segregating Baby Chicks at Hatching Time.

For the benefit of those who would like to undertake the segregation of the sexes of baby chicks at hatching time, the following instructions have been compiled by poultry specialists of the Bureau of Animal Industry, U.S. Department of Agriculture.

Since these instructions are condensed, a careful study of them should be made before attempting the method, and they should be available for reference during the first few trials. Much delay in progress may be avoided by doing this.

The chick is held in the palm of the left hand with its legs between the first two fingers and its head hanging down. If the little finger is now brought forward allowing the head to drop between the little finger and the one next to it, the operator will find that he has his two middle fingers over the chick's breast, his forefinger above its legs, his little finger against its back and his thumb will be free.

The free thumb of the left hand is now placed near the lower (ventral) side of the anus (vent) to assist the thumb and forefinger of the right hand, which are placed on each side of the anus a little toward the back. With the two thumbs and one finger, spaced about equally around, the eversion of the anus is easy. However, experience has shown that in some cases the fear of injuring the chicks leads to a tendency to evert the anus only partly. It is essential that the anus be well everted and with a little practice this can be accomplished without injury to the chick.

The genital organ is found near the left thumb on the ventral fold of the anus near the rim. It appears as a tiny tit or pimple which is not easily seen at first. However, with a little practice the eye soon learns to detect it quickly. The size and shape of the organ vary considerably. Most of the males have a relatively prominent organ, while in a majority of the females it is completely absent. Chicks with such characteristics are easily identified, even by a novice.

A small percentage of both males and females have relatively small organs. It is the class of chicks with these small organs that present the real problem in making rapid progress in learning to sex chicks. However, there are differences in the appearance of these small organs, and with persistent practice the operator will eventually learn to recognize them for what they are. Until such time, it is safer to assume that the very small organ means that the chick is a female, since the majority of them are.

An accuracy of 70 to 80 percent should be attained soon after the observer is able to recognize the genital organ. The greatest difficulty comes between 20 and 90 percent. This is where one learns to differentiate between the males and females of the small-organ class.

In the regular practice of sexing it is not unusual to find that a small run of the first chicks picked up are females, and this is one of the problems that presents itself to the beginner because there is often nothing to see in the female chick. Since he cannot know exactly what he is looking for, there is always the question as to whether he is looking at a male and failing to see what is there or whether the chick is a female. Where "sex-linked" chicks are available, known males can be used until the organ has been identified. A popular sex-linked cross is a Rhode Island Red male mated to Barred Plymouth Rock females, the male chicks produced by this cross being black with a white spot on the back of the head and the beak and shanks being yellow, whereas the female chicks are solid black in down color and the beak and shanks are also black. Where this is not possible the operator should handle a large enough number of chicks to insure the handling of some males. After the genital organ has been surely recognized, better progress should result from working with chicks the sex of which is unknown to the operator.

It is necessary for the beginner - in the absence of an experienced instructor - to dissect the chicks after segregation in order to check his observations and correct erroneous decisions. After this the number of chicks that will need to be dissected will be considerably smaller, consisting only of those in which the operator doubts his accuracy of segregation. Cull chicks and even those that need to be helped out of the shell can be used for practice.

The chicks to be dissected should first be killed and then cut open along the sides of the abdomen from the anus toward the wing joints. The intestines are then gently removed from the abdominal cavity. In the male chick the testes appear as a pair of small white or yellowish, oblong bodies, regular in shape and lying along the backbone at the level of the lower ribs. In the female chick the ovary is a small yellowish, flat, irregular body, in the same position as the testes, but on the left side only. After a few chicks have been dissected, it should be very easy to distinguish between testes and ovary.

The above procedure should be followed without regard to speed until the operator has reached a degree of accuracy suitable to his needs. For commercial purposes this must be well over 90 percent. Some increase in speed will occur naturally during the period of learning, but real speed must be the result of consistent practice with many chicks.

A good light is essential. Bright daylight is best, but a 200-watt electric bulb may be used. The operator will find that fewer mistakes will be made if the chick is rotated several ways so that observations can be made from several angles. It is especially true that in some chicks where the genital organ is pale in color, it is difficult to see when looking directly down upon it, but is easily seen as a silhouette against the light.

Last but not least is the fact that newly hatched chicks are much the easiest to sex. The beginner is urged, for the sake of his own progress, to use only chicks that are newly hatched and dried off, about half a day old. After chicks are one day old they become progressively more difficult to sex on each succeeding day.